# Content Manager Version 8

# Resource Manager Overview

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for
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**October 26 - 27, 2004**

**IBM Forum Stuttgart, Pascalstrasse 100  70569 Stuttgart, Germany**

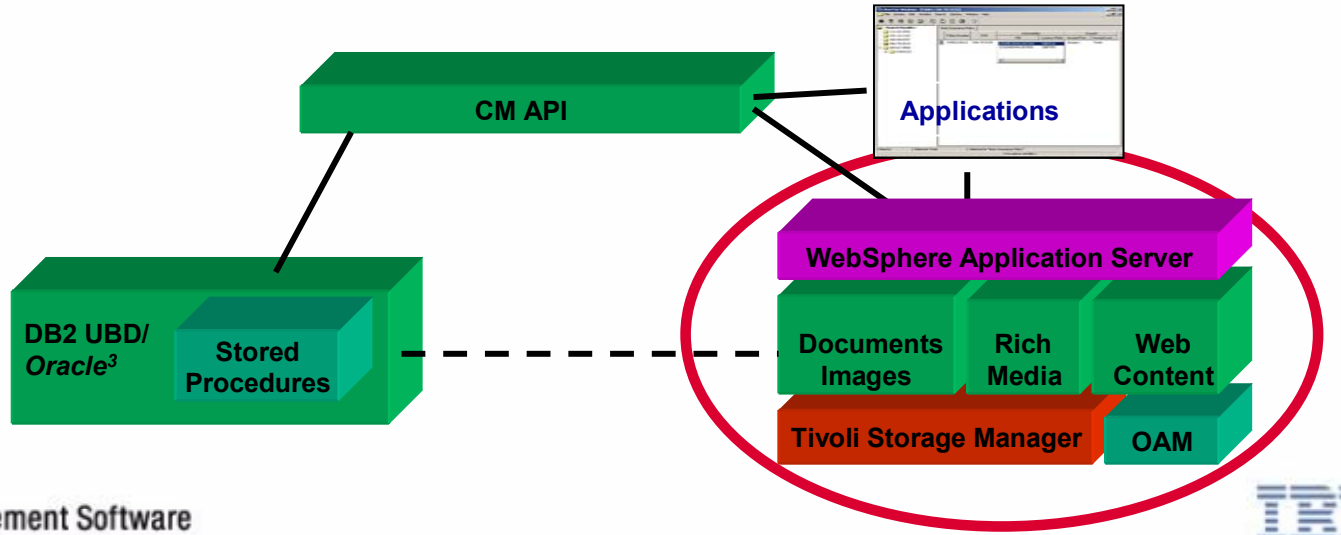
# Agenda

- CM V8.3 Resource Manager

# Content Manager Architecture

## Resource Manager

- One or more servers per Library Server, managing "objects"
- WAS on Windows/UNIX, HTTP Server or WAS on z/OS
- TSM provides HSM function on Windows/UNIX
- OAM provides SMS/HSM function on z/OS
- Video Charger supported as RM
- Sysplex Distributor on z/OS for scalability, availability

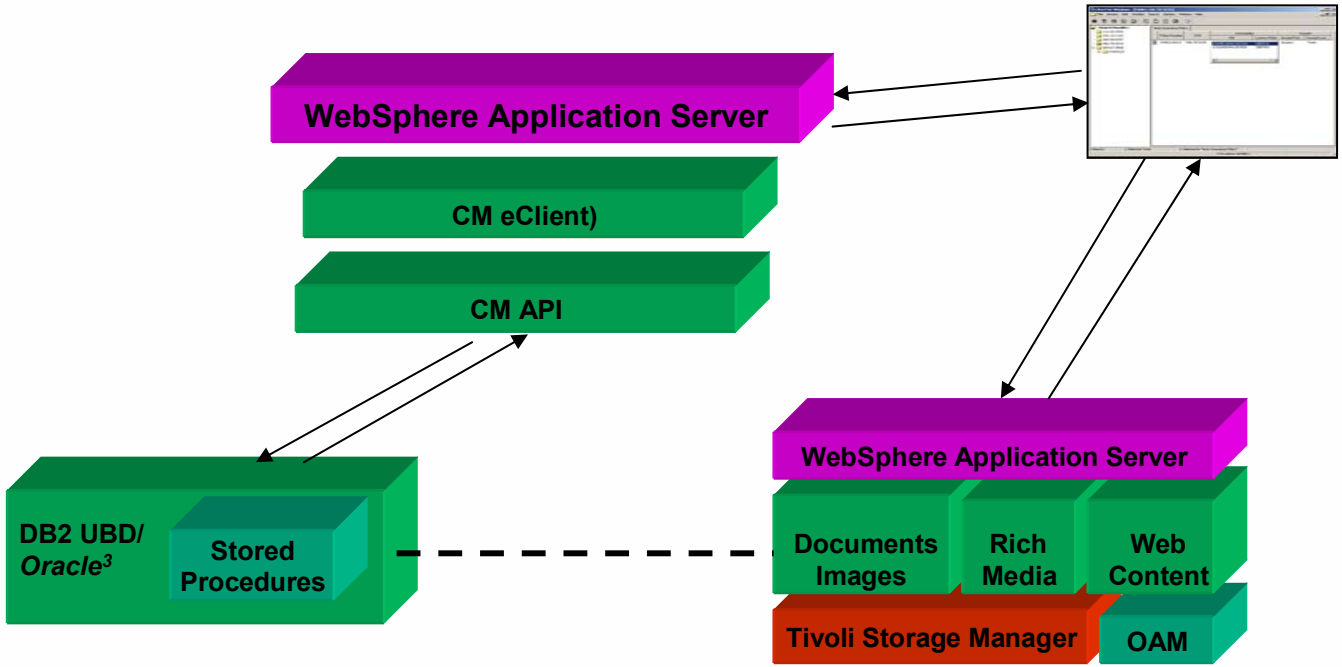


# Content Manager Architecture

## Control flow through Components

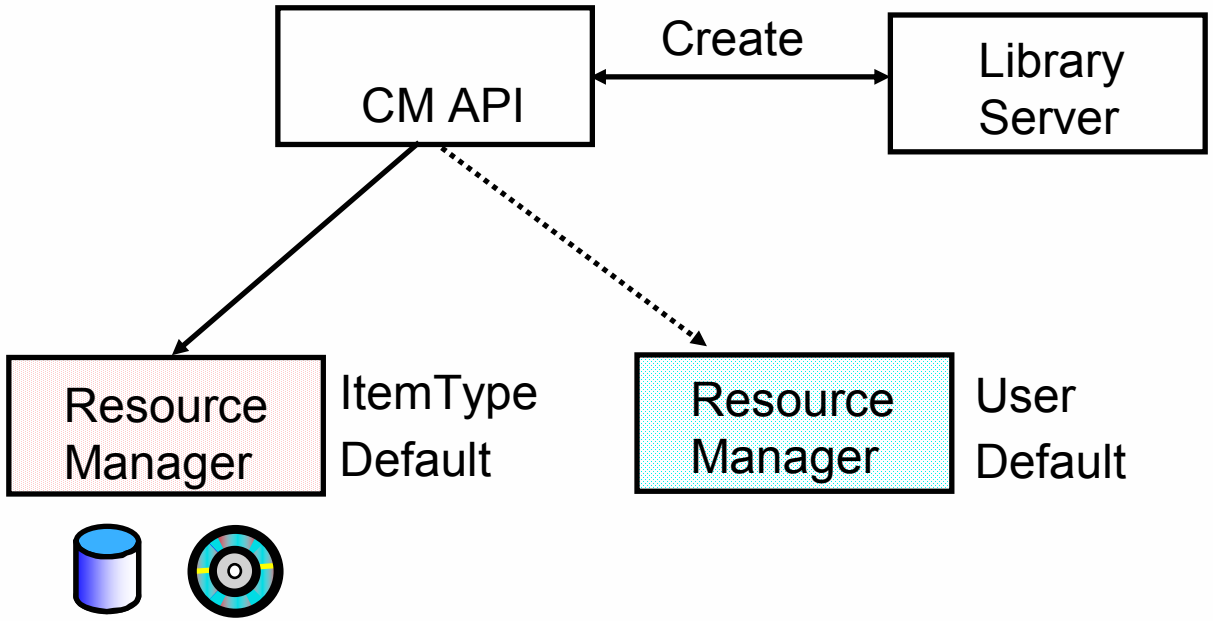
- Thin client requests a document
- Application server sends request to Library Server
- If user is authorized, LS returns URL, Object Token
- Page with URL is returned to thin client
- Thin client opens URL, sending HTTP message to Resource Manager
- Object is returned to thin client for display or mid-tier for transform

ƒ No "run time" communication between LS and RM



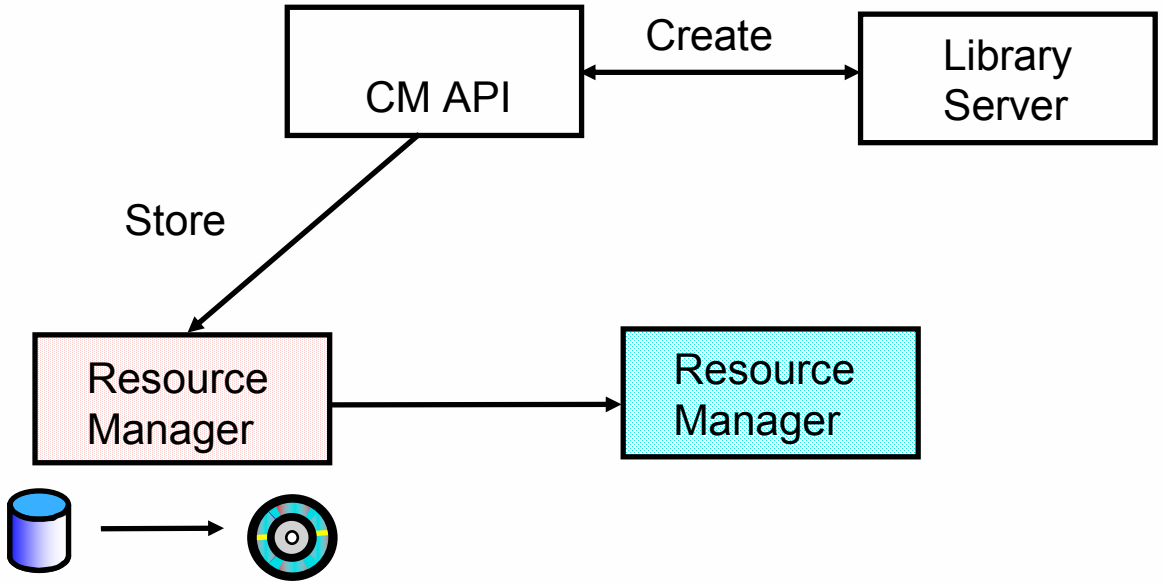
# Resource Manager

- Resource Manager and Collection selected based on
  - ItemType
  - User Default
  - Mix
- Collection specifies volume, directory, retention, migration, and replication policies



# Resource Manager
# Migration -- Multiplatform

- Content Manager implements System Managed Storage
- Migration policy can specify that objects should move
  - To a different storage class on the same system - usually TSM
  - To a storage class on a different system
  - After "n" days or when storage group is "x" percent full



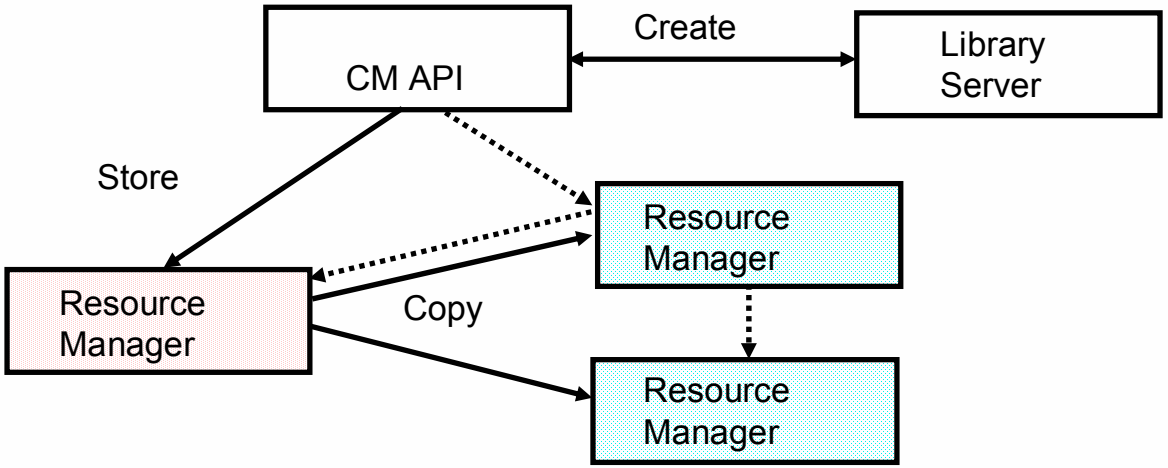
# Resource Manager Replication

- Peer copies of an object on multiple resource managers

- Availability -- Failure of the primary Resource Manager doesn't interfere with use of the system
- Recoverability -- If data is lost on a Resource Manager, another can provide access to the missing objects
  - A LS/RM validation utility detects missing objects from the RM file system or database
- Backup -- By replicating to a collection on the same or different server a backup copy can be on optical, tape, or dasd
- Performance -- By replicating objects to remote Resource Managers, retrieval time can be reduced

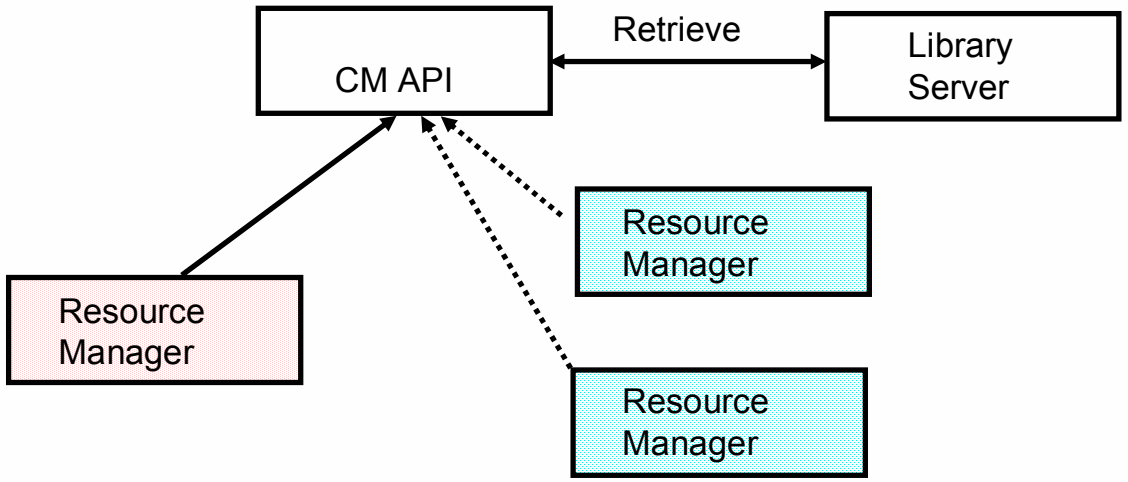
# Resource Manager Replication - Store

- An object may be stored to the RM associated with the ItemType or assigned as the default for the user
- Administrator defines Replication Source and Target
  - Resource Manager + Collection
- List of RMs is sent along with Store request
- Replicator process copies objects to other RMs
  - If active and not busy, a copy is created immediately



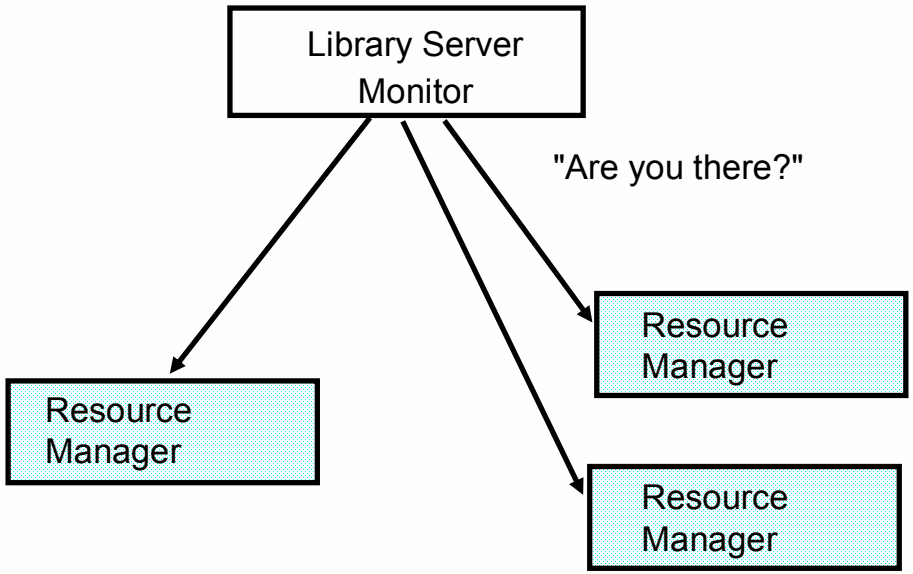
# Resource Manager
# Replication - Retrieve

- Library Server selects Resource Manager marked as "available" containing a current copy
  - User default RM is preferred
  - Default RM for ItemType next
  - Any RM with current copy next



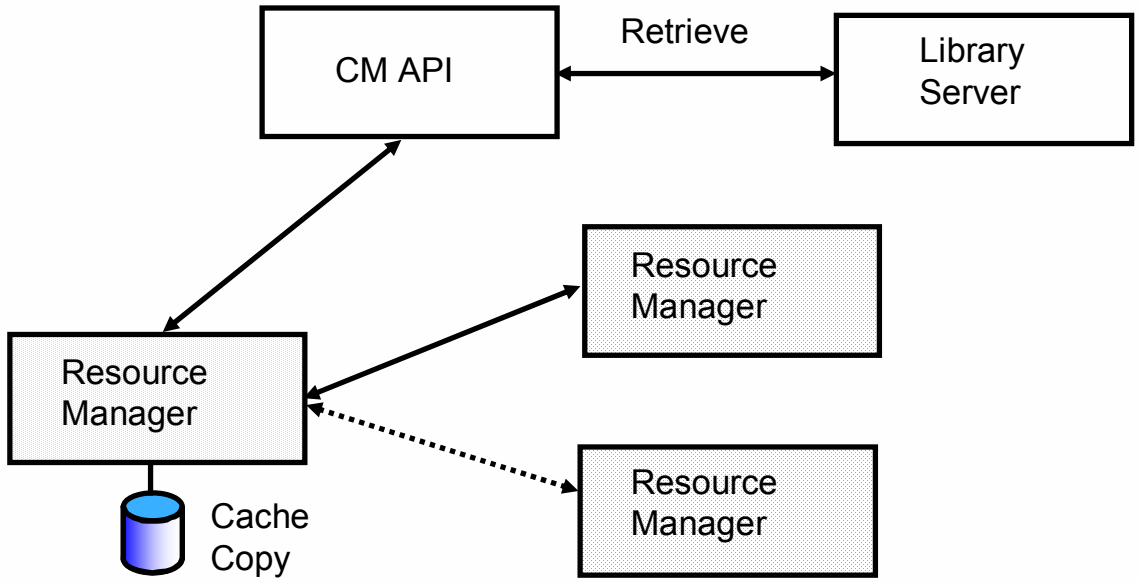
# Resource Manager Replication - Failover

- Library Server monitors availability of Resource Managers
  - Administrator defines interval and timeout
  - Default 60 and 15 seconds
- Store or retrieve requests can bypass a RM that is not available



# Resource Manager
# LAN Cache

- If the default Resource Manager assigned to a user is enabled for LAN Cache, Retrieve requests are routed through LAN Cache server
  - If a current copy exists, it is returned to the client
  - Otherwise, the object is retrieved from another RM and a copy left on the LAN Cache Server
  - Cached objects are removed when limit on directory size is approached



# IBM Content Manager Version 8

- Rich function to meet the requirements of many types of applications
- Extensible architecture to meet future requirements
- Exploiting the strengths of strategic IBM technologies
- Achieving both performance and scalability

## The foundation for Enterprise Content Management